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Complete Copy of The Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Previously Presented) In a non-detachable press fit arrangement between an end portion of a metal pipe and a crimpable socket of a fitting, with the socket defining an interior space and being formed with an annular anchoring groove facing the interior space for receiving a sealing ring, said press fit arrangement comprising at least one holding element resiliently secured to the socket in a receiving groove and cold formed together with the socket, said holding element has a material penetrating component formed by a plurality of cutting arcuate projections pointing in the direction of the anchoring groove and whose ends penetrate the metal pipe after the socket is crimped by cold forming, and wherein the annular anchoring groove is located in front of and separate from the receiving groove relative to the pipe end.

2. (Previously Presented) The press-fit arrangement of claim 1 wherein the socket is formed adjacent the anchoring groove for the sealing ring with an annular receiving groove facing the interior space for receiving the holding element, and wherein said material penetrating component is a cutting edge arranged about the circumference of the holding element and extending to the end portion of the metal pipe.

3. (Withdrawn) The press-fit arrangement of claim 1 wherein the holding element is a ring formed with an axial slot.

4. (Withdrawn) The press-fit arrangement of claim 3 wherein the ring-shaped holding element has a cross section selected from the group consisting of vertex of a triangle, curved and polygonal.

5. (Withdrawn) The press-fit arrangement of claim 2 wherein the receiving groove has a conical base, said holding element having a cross sectional contour which complements the conical base, and including a free edge of small diameter for penetration into the end portion of the metal pipe after radially compressing the socket.

6. (Original) The press-fit arrangement of claim 2 wherein the holding element is mounted by way of a positive fit into the receiving groove.

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7-8. (Canceled)

9. (Original) The press-fit arrangement of claim 1 wherein the socket of the fitting has an outer peripheral surface formed with an engagement member selected from the group consisting of circumferential groove, lobes, ribs and circumferential fins for attachment of a press tool.

10. (Canceled)

11. (Original) The press-fit arrangement of claim 1 wherein the socket of the fitting is substantially round after being compressed, with sealing forces and holding forces applied between the socket and the end portion of the metal pipe being substantially evenly distributed about the circumference of the metal pipe.

12. (Canceled)

13. (Withdrawn) The press-fit arrangement of claim 2 wherein the holding element is a sleeve which is slotted in the axial direction and formed with an anchoring flange engaging in the receiving groove of the socket, said holding element traversing an annular gap formed between an end face of the fitting and the end portion of the metal pipe to extend outwards for surrounding the metal pipe, whereby through application of a press tool a portion of the holding element is capable to dent the metal pipe.

14. (Withdrawn) The press-fit arrangement of claim 13 wherein the portion of the holding element has an inner surface formed with teeth.

15. (Withdrawn) The press-fit arrangement of claim 1 wherein the socket has an end face forming an entry opening for the end portion of the metal pipe, said socket being formed in close proximity to the end face with a ring-shaped receiving groove which is open to the outside for receiving an anchoring flange of the holding element, said holding element being an axially slotted sleeve which surrounds the metal pipe and partially dents the material of the metal pipe.

16. (Withdrawn) The press-fit arrangement of claim 15 wherein the sleeve has an inner surface formed with teeth.

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17. (Withdrawn) The press-fit arrangement of claim 1 wherein the anchoring groove is formed in a bead of the socket, said holding element being formed as a stepped sleeve having a first portion of smaller diameter and a second portion of greater diameter, with the second portion overlapping the bead of the socket, and with the first portion surrounding the metal pipe, wherein the holding element matches an outer contour of the socket after being compressed, with the first portion of the stepped sleeve denting the material of the metal pipe.

18. (Original) The press-fit arrangement of claim 1 wherein the holding element has a hardness exceeding a hardness of the metal pipe.

19. (Original) The press-fit arrangement of claim 1 wherein the holding element is made of special steel.

20. (Original) The press-fit arrangement of claim 1 wherein the sealing ring is a seal selected from the group consisting of lip seal, O ring or matched formed part.

21. (Original) The press-fit arrangement of claim 1 wherein the sealing ring has a relatively small cross section.

22. (Previously Presented) The press fit arrangement of Claim 1, wherein the interior space of the socket includes a shoulder, which limits the amount of insertion of the pipe end, and the anchoring groove is between the shoulder and the receiving groove and spaced from the shoulder.

23. (Previously Presented) The press fit arrangement of claim 1, wherein the receiving groove includes two opposed walls, one of the walls limiting axial movement of the holding element away from the anchoring groove before insertion of the pipe end into the socket.

24. (Previously Presented) The press fit arrangement of claim 1, wherein the projections form one end of the holding element.

25. (Previously Presented) The press fit arrangement of claim 1, wherein the socket is dimensioned to receive pipes having an insider diameter of greater than 54 millimeters.